massachusetts
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DEVELOPING A LAND-USE MANAGEMENT PROCESS

case study
mashpee, massachusetts

local assistance series 4

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11584

Commonwealth of Massachusetts

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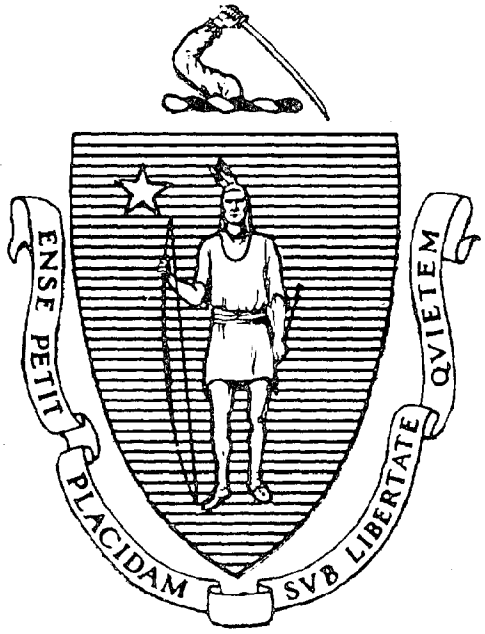

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Massachusetts, Dept. of Community Affairs

DEVELOPING A LAND USE MANAGEMENT PROCESS

CASE STUDY
MASHPEE, MASSACHUSETTS
LOCAL ASSISTANCE SERIES
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PREFACE

This report is part of a special series of local assistance studies undertaken by the Community Planning and Management Section, Office of Local Assistance, of the Massachusetts Department of Community Affairs, financed in part through the Federal HUD 701 Planning and Management Assistance Program. This series of studies represents a departure from previous efforts of the Department in providing technical assistance to Massachusetts communities under 50,000 population. Earlier efforts of the DCA concentrated limited staff and consultant resources to produce long-term (1 to 2 year) master plan studies for only a few of the Commonwealth's cities and towns each year. In contrast to this former approach, DCA's delivery of technical assistance now concentrates short-term efforts on addressing urgent local issues of state-wide significance, through the use of the case study or model approach.

A key element in this style of technical service delivery is that DCA staff and consultants attempt to achieve solutions which might help many communities by gaining concrete and practical insights into a problem in the context of a given community. In this way, other communities facing similar problems can benefit from the work performed in the model community.

This study concentrates on the land use management process and discusses strategies and tools which may be useful to communities presently experiencing problems caused by rapid growth. The model community for this study was the town of Mashpee. Other studies conducted as part of this new service and the communities in which they were carried out are as follows: Establishing a Department of Community Development, Peabody; Preserving Agricultural Land, Westfield; Evaluating Development Impact, Chelmsford; Organizing for Economic Development, Wareham; Monitoring Change in Residential Neighborhoods, Melrose; Revitalizing Small Town CBDs, Millbury; and Evaluating Reuse Options for Large Institutional Land Holdings, Lenox. These projects were selected by DCA from among 70 applications by over 50 municipalities under 50,000 population from across the state.

The Planning and Management Section of the Office of Local Assistance wishes to acknowledge the contribution of the many local officials and citizens who were involved in these studies. Without their interest, cooperation, and critique, these studies would not be as meaningful to you.

We urge you to contact the Office of Local Assistance for further information if your community is considering action in the area covered in this report. Let us know too if you find these studies useful or have any suggestions in improving DCA's new program of technical assistance.

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I. INTRODUCTION

This project, undertaken by the Department of Community Affairs, represents an attempt toward developing an effective land use management process for a small Cape Cod town, Mashpee, presently experiencing problems caused by rapid, predominantly residential growth. This report will help enable the Town to direct its growth so that ultimate development patterns will be superior to those patterns which would otherwise happen with unplanned growth. However, the report incorporates neither a recommended future land use plan nor a complete zoning by-law revision. Instead strategies and tools are suggested which, when translated by the Town into policies, regulations, and administrative procedures, will result in a more effective land use management system.

As growth-related problems exist in cities and towns throughout Massachusetts, the strategies and tools suggested here may be useful to communities other than Mashpee. What is critical is the choice an individual city or town makes in adopting policies to deal with its land use problems. While each community's choice of policies is both guided and constrained by local political and economic realities, the methods and options presented here can be used, in variant forms, in many Massachusetts cities and towns.

The Department of Community Affairs wishes to stress that establishing an "effective land use management process" does not imply stopping or otherwise curtailing development and growth in a community. Rather, a balance is sought between respect for the environment and the need for development within the fiscal resources of a given municipality. Sound land use management is not exclusionary nor is it anti- or pro-growth; it is wise and systematic planning for land and water resources that will lead to better community life for present and future residents.

II. THE CONTEXT OF MASHPEE'S GROWTH-RELATED PROBLEMS

A. THE COMMUNITY'S PERSPECTIVE

Early in the Department of Community Affairs' examination of growth in Mashpee an attempt was made to contact a cross-section of local decision makers in order to ascertain their views and opinions on community growth, its forms and ramifications. Because of the time limitations imposed by the nature of this project, no attempt was made to reach a formal consensus of opinion among townspeople. In place of such an effort, local perceptions of problems, needs, and goals (as well as conflicts between these perceptions) were identified through interviews, questionnaires, and group discussions. Those participating included town officials (elected and appointed) and other individuals knowledgeable in the workings of Mashpee's government and the problems facing the Town. This latter group included representatives of special interest groups and individuals who directly or indirectly influence land use decisions made in Mashpee. The responses, in interviews and group discussions and on questionnaires, made clear the commonality of a number of basic concerns. (See Chapter V. for a copy of the questionnaire used and a listing of groups and individuals contacted.) The following discussion summarizes the points raised.

A commonly expressed concern centered on Mashpee's governmental structure itself: there seems to be some confusion within town government as to who should do what and why. This situation certainly is not unique to Mashpee, but is often a characteristic of the state's decentralized local governmental system. Within Mashpee, the conclusion is that the Town has had an informal governmental system which has allowed too much independent and uncoordinated board action. A number of those questioned indicated that town officials must

work together and cooperate in their administration of departmental and/or board policy. Others simply noted that many town boards are not strong enough to act with success: "Presently we are attempting full-time services with part-time government."

Governmental informality and board independence are perceived as having caused confusion, especially with regard to issues which have been within the purview of more than one town board. For instance, such confusion exists in the land use decision-making process, a process in which many boards have some regulatory power (Planning Board, Board of Health, Conservation Commission, Board of Appeals) and others heavily influence the kinds of decisions made (Board of Assessors). A few individuals went further, indicating that, at present, some town boards are not sufficiently vigilant and do not fulfill all the obligations of their role within the community. For instance, this could occur if two boards defer to one another, assuming that the other will take action on an issue. The result may be that action is taken by neither board.

The lack of coordination between town boards and the potential for contradictory actions in Mashpee is seen as the result of the fact that Mashpee's government seems to be operating with neither explicit goals nor a clear plan of action for responding to the changes taking place in the community. Therefore, town government often finds itself reacting to existing problems on a crisis basis, rather than anticipating difficulties and planning accordingly. DCA perceives a circularity in these concerns:

(1) Actions taken by town boards are often uncoordinated or even contradictory because Mashpee has neither explicit goals nor a clear plan of action for responding to changes taking place in the community.

(2) Mashpee has neither explicit goals nor a clear plan of action for responding to changes taking place in the community because actions taken by town boards are often uncoordinated or even contradictory.

In response to the need for more consistency in town actions, the need for a full-time town administrator was expressed by some respondents. The recent appointment of an Executive Secretary should eliminate this problem, as he should be aware of the actions being taken by the various town boards and will be able to identify and make known any conflicting programs. Further, he could help to define the community goals by which town government will act.

Of great concern to all Mashpee respondents is the Town's clear need for capital improvements. The point was made that Mashpee does not yet have many desired municipal buildings and that recent community growth has significantly increased the need for these facilities. Needed capital improvements include a middle school, a high school, a fire and police station, a town hall, and a highway department garage. Qualifying this response was the realization that the capital expenditures required for such construction programs are extremely large for a community of Mashpee's size, potentially straining its tax base. As part of this discussion, some feared that major municipal improvements might encourage further growth in the community, thus necessitating further improvements. For instance, construction of a school in Mashpee could make Mashpee more attractive to young families with children. These families might expect and demand additional municipal services which would then result in additional municipal costs and an increase in the tax rate. This increased tax rate could then cause Mashpee to be less attractive to the second home and retirement home markets, which are so important in contributing to Mashpee's tax base. Given this anticipation of major fiscal expenditures, many respondents called for the encouragement of light industry in Mashpee. Such development is perceived as being fiscally beneficial to the community. Further, it is suggested that this kind of development could be sited to be as environmentally undisruptive as possible.

To many, the ultimate problem facing Mashpee is that the rapid growth that has occurred already has made the community's cultural and physical resources vulnerable. A number of respondents report being dismayed by the rate of development that has occurred in Mashpee in recent years. Longtime residents are now in the minority and fear that Mashpee is losing its historic identity, and that the community is losing its distinctive qualities. It is clear that a future Mashpee as a bedroom suburb to Falmouth and/or Barnstable (or even Boston) is not perceived as desirable. The image of a future Mashpee sectionalized by income level is similarly not desirable.

Several of the respondents indicated that Mashpee's greatest assets are its water areas; the Town's ponds are especially singled out for this distinction. It is clear, however, that not only are the ponds and the lands around them Mashpee's greatest assets, but they are also (because they are so lovely) most vulnerable to the pressures of development. Unfortunately, such development could lead to the pollution of those ponds. For this reason, several individuals indicated that the ponds and the areas surrounding them must be protected; as a general solution, some suggested larger lot sizes for the Town.

B. THE PLANNER'S PERSPECTIVE

1. PAST GROWTH

In 1965 Mashpee had a resident population of 665. By 1970 the Town's population had grown to 1,288; at that time 23.8 percent of those residents described themselves as minority, including about 15 percent who described themselves as Indian. By 1975, Mashpee's resident population had grown to 2,496, an increase of 95 percent in five years, 275 percent in ten years (the largest increase in the state). Within the same periods, the population of

Cape Cod had grown by 31 and 72 percent (see Table 1). At the time of the 1970 federal census, the percentage of Mashpee's population below the poverty level was 13.2 percent, while the percentage for Barnstable County (Cape Cod) was 8.2 percent. Further, the 1970 unemployment rate among Mashpee residents was 7.9 percent, while that for Barnstable County was 3.9 percent.

As measured by the issuance of building permits for dwelling units, Mashpee's rate of growth (1970-1975) was 61 percent, the second highest on Cape Cod and double the 32 percent rate of growth for the Cape as a whole (see Table 2). Using proposed 1976 figures, the rate of increase in equalized assessment for Mashpee during a similar period (January 1, 1970 - January 1, 1976), was 537 percent, while that for Cape Cod as a whole was 198 percent (see Table 3).

The rapid development experienced in Mashpee in recent years has been predominately residential and secondarily strip-commercial. Single-family housing has dominated residential construction, primarily as a result of market demand. Both 1970 census data and current local judgments indicate that Mashpee has a lower percentage of median value owner-occupied units than the Cape as a whole, but the highest percentage of lower value (under $10,000) owner-occupied units of any Cape Cod town and the highest percentage of owner-occupied homes valued at $50,000 and over of any Cape Cod town (see Figure 1 and Table 4). Historically, year-round rental units have constituted such an insignificant portion of Mashpee's housing stock that comparisons with other Cape Cod communities would not be meaningful.

The New Seabury development, in which most of Mashpee's $50,000 and over homes are located, capitalized on the market value of Nantucket Sound frontage and owns a majority of such frontage within the Town. Residential developers have more recently capitalized on the remaining undeveloped water-frontage

TABLE 1

CAPE COD POPULATION 1965-1975

	1965	1970	1975	1965-1975 Change Number	1965-1975 Change Percent	1970-1975 Change Number	1970-1975 Change Percent
BARNSTABLE	15,609	19,842	26,699	11,090	71	6,857	35
BOURNE	6,376	12,636	11,362	4,986	78	-1,274	-10
BREWSTER	1,533	1,790	3,709	2,176	142	1,919	107
CHATHAM	4,195	4,554	6,027	1,832	44	1,473	32
DENNIS	4,374	6,454	9,351	4,977	114	2,897	45
EASTHAM	1,733	2,043	3,069	1,336	77	1,026	50
FALMOUTH	13,832	15,942	20,648	6,816	49	4,706	30
HARWICH	4,830	5,892	7,786	2,956	61	1,894	32
MASHPEE	665	1,288	2,496	1,831	275	1,208	94
ORLEANS	3,181	3,055	4,369	1,188	37	1,314	43
PROVINCETOWN	3,463	2,911	3,947	484	14	1,036	36
SANDWICH	2,438	5,239	6,358	3,920	161	1,119	21
TRURO	962	1,234	1,260	298	31	26	2
WELLFLEET	1,651	1,743	1,973	322	20	230	13
YARMOUTH	8,715	12,033	17,427	8,712	100	5,394	45
CAPE COD TOTAL	73,557	96,656	126,481	52,924	72	29,825	31

SOURCE: U.S. Bureau of the Census and Massachusetts State Census Office

TABLE 2

CAPE COD DWELLING UNIT PERMITS 1970-1975

	1970 Census	1970-1975 Permits Granted	1975 Total	Percent Increase
BARNSTABLE	10,292	3,683	13,975	36
BOURNE	6,034	1,234	7,268	20
BREWSTER	1,503	1,247	2,750	83
CHATHAM	3,943	670	4,613	17
DENNIS	7,329	2,916	10,245	40
EASTHAM	2,687	651	3,338	24
FALMOUTH	9,619	2,758	12,377	29
HARWICH	4,535	1,389	5,924	31
MASHPEE	1,991	1,213	3,204	61
ORLEANS	2,229	699	2,928	31
PROVINCETOWN	2,507	126	2,633	5
SANDWICH	2,368	1,117	3,485	47
TRURO	1,132	236	1,368	21
WELLFLEET	1,933	387	2,320	20
YARMOUTH	7,574	2,870	10,444	38
CAPE COD TOTAL	65,676	21,196	86,872	32

SOURCE: 1970 U.S. Bureau of the Census and Massachusetts Building Code Commission

TABLE 3

CAPE COD EQUALIZED ASSESSMENTS 1970-1976

	January 1, 1970	Proposed January 1, 1976	1970-1976 Change Dollars	Percent
BARNSTABLE	$ 267,000,000	$ 849,600,000	$ 582,600,000	218
BOURNE	90,000,000	246,600,000	156,600,000	174
BREWSTER	50,000,000	174,800,000	124,800,000	250
CHATHAM	99,000,000	298,900,000	199,900,000	202
DENNIS	152,000,000	433,100,000	281,100,000	185
EASTHAM	49,000,000	158,000,000	109,000,000	222
FALMOUTH	190,000,000	560,200,000	370,200,000	195
HARWICH	90,000,000	318,500,000	228,500,000	254
MASHPEE	46,000,000	293,100,000	247,100,000	537
ORLEANS	77,000,000	221,400,000	144,400,000	188
PROVINCETOWN	63,000,000	108,500,000	45,500,000	72
SANDWICH	105,000,000	274,900,000	169,900,000	162
TRURO	45,000,000	88,300,000	43,300,000	96
WELLFLEET	58,000,000	97,880,000	39,880,000	69
YARMOUTH	150,000,000	440,400,000	290,400,000	194
CAPE COD TOTAL	$1,531,000,000	$4,564,180,000	$3,033,180,000	198

SOURCE: Massachusetts Department of Corporations and Taxation

1970 OWNER-OCCUPIED HOUSE VALUE
(IN THOUSANDS)

FIGURE 1

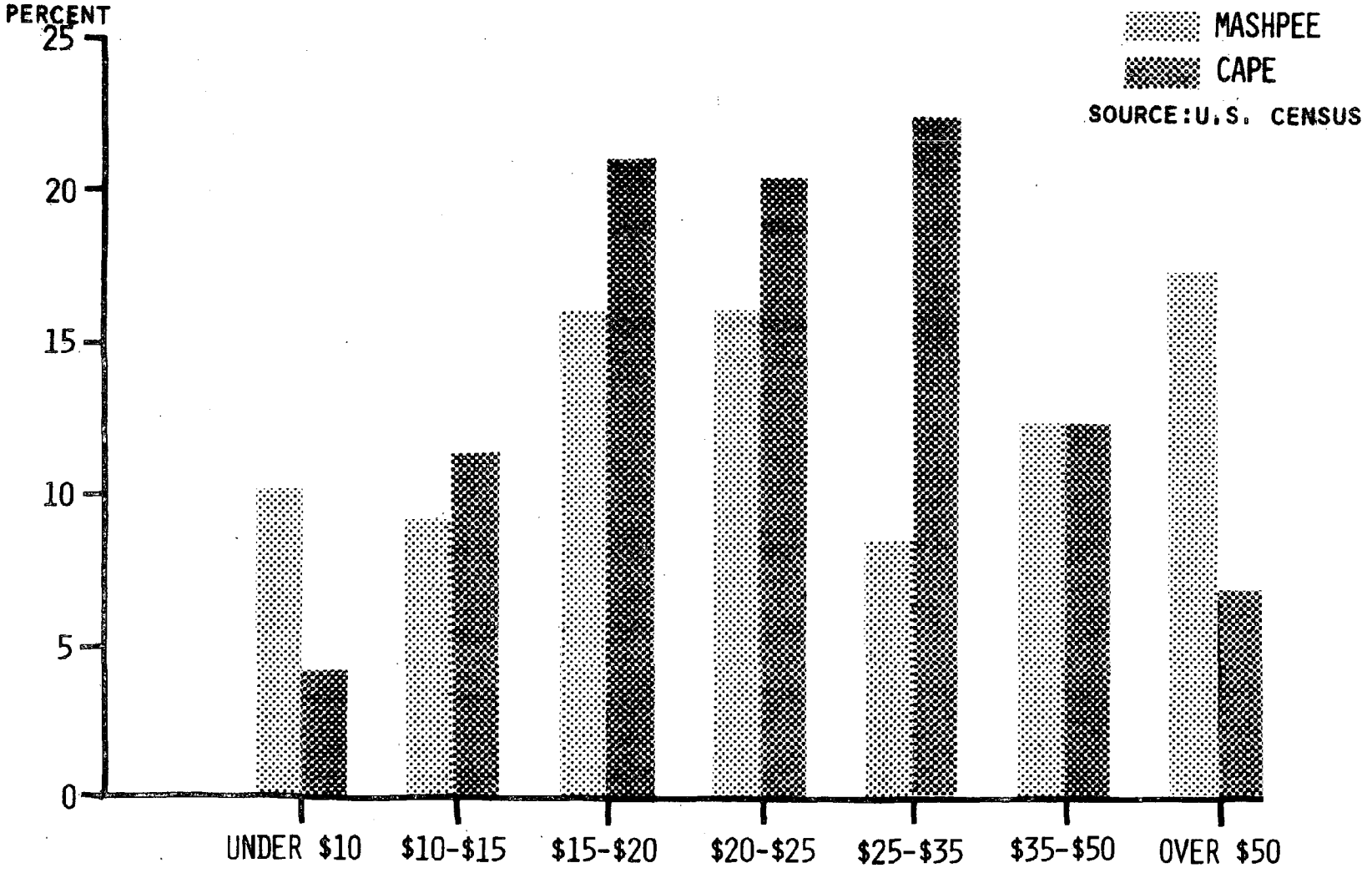


TABLE 4

1970 CAPE COD OWNER-OCCUPIED HOUSE VALUE
(PERCENTAGE)

	Less Than $5,000	$5,000-$10,000	$10,000-$15,000	$15,000-$20,000	$20,000-$25,000	$25,000-$35,000	$35,000-$50,000	More Than $50,000
BARNSTABLE	.7	3.7	10.6	19.3	21.3	23.2	12.8	8.4
BOURNE	.7	6.0	25.9	29.8	15.7	13.2	6.4	2.4
BREWSTER	.6	3.6	10.7	18.6	19.8	27.0	15.2	4.4
CHATHAM	1.2	4.0	6.7	14.1	20.1	22.8	16.3	14.8
DENNIS	.5	2.3	10.2	21.1	21.7	24.6	13.0	6.6
EASTHAM	.5	2.9	11.4	17.9	22.2	29.4	10.8	4.9
FALMOUTH	.6	4.5	13.1	21.8	18.9	22.3	12.0	6.7
HARWICH	.2	4.1	10.4	20.6	23.3	24.8	10.5	6.1
MASHPEE	3.9	6.2	16.2	17.8	17.8	8.5	12.4	17.4
ORLEANS	.4	1.4	7.4	11.9	16.2	26.5	20.5	15.8
PROVINCETOWN	1.4	6.5	14.6	21.8	25.0	17.6	9.7	3.4
SANDWICH	.2	3.4	12.7	21.4	22.0	25.1	11.6	3.4
TRURO	.5	2.8	6.1	14.6	19.8	27.8	16.5	11.8
WELLFLEET	1.2	4.9	17.3	19.3	20.5	20.0	13.4	3.4
YARMOUTH	.3	1.6	8.9	24.9	24.2	23.4	12.6	4.1
CAPE COD TOTAL	.6	3.6	11.9	21.1	20.9	22.7	12.4	6.9

SOURCE: U.S. Bureau of the Census

land, notably around Mashpee's four large fresh water ponds. It is clear that the introduction of numerous very expensive homes (many of which are vacation homes or retirement homes without children) has been an enormous fiscal gain for the Town.

Two points emerge from these housing facts. First, there is ample lower income year-round housing in Mashpee. In fact, in 1975 very few local requests were made for admission to a subsidized housing project constructed in the Town. Second, the extremes in values in Mashpee's housing stock reflect an income (and, perhaps, a cultural) split within the community.

As mentioned above, some Mashpee residents fear the loss of the Town's identity and fear a potential loss of heterogeneity among residents; or put differently, potential homogenization. It is interesting to note that these concerns were expressed by persons of diverse income levels and ethnic backgrounds. Income and ethnic variety in the population exists now, but Mashpee's present zoning is considered by some to be "snob" zoning. If there is a basis for characterizing Mashpee's land use policies as "snob," the justification would rest on the fact that more stringent regulations make it economically more difficult for non-affluent natives to develop their own land.

2. FUTURE GROWTH

Assuming that the national economy revives, it can be assumed that residential growth pressures of two types could affect Mashpee. First, the demand for vacation or retirement homes will continue. Persons seeking such homes will be attracted by recreation-oriented sites (notably water bodies), a low tax rate, and (in the case of Cape Cod communities) proximity to the "mainland." Municipal facilities and level of municipal services will not be priorities for such home buyers. Second, there will be some demand for

year-round homes by those employed locally or regionally. These home buyers will seek reasonably-priced homes in a community with adequate municipal facilities (including schools) and a reasonable level of municipal services. Clearly, the level of this year-round demand will relate to job creation within the region.

It has been hoped that future military use and non-military reuse of a portion of the Camp Edwards-Otis Air Force Base's 22,000-acre tract would result in significant job creation on Cape Cod. It now appears that the continuation of military uses (including the development of a cemetery and radar installation and the possibility of increased Coast Guard operations) will result in an increase in job opportunities. The possibilities for non-military reuse now focus on 1,000 vacant acres in the eastern sector of Otis Air Force Base which are to be declared excess by the Air Force. However, neither of the proposals for reuse (a visitor's crafts center and a "summer city") being considered by a state and regional task force is likely to create year-round jobs for regional residents.

Future demand for single-family housing in Mashpee, especially for median value year-round housing, also will be related to the availability of such housing within the immediate region. Mashpee's current zoning allows, by right (as distinguished from by special permit), minimum lot sizes of either 12,500 square feet or 22,500 square feet. The towns abutting Mashpee all have substantial zoning areas requiring larger minimum lot sizes (allowed by right). Sandwich is zoned predominantly for one-acre lots. Falmouth is moving in the same direction, having created three new one-acre zones within the last two years. In addition, Falmouth is presently contemplating creating 60,000 square

foot minimum lot zones. Undeveloped land in Barnstable is generally zoned for one-acre lots. As with Falmouth, much of Barnstable's up-zoning occurred within the last two years. Barnstable is also contemplating the creation of a two-acre zone. It is obvious that those seeking new median value housing within this Upper Cape Region may well be drawn to Mashpee and its smaller minimum lot sizes.

Neither the housing market as a whole nor local citizens have created a demand for multi-family housing in Mashpee. Similarly, industry and large-scale businesses have not sought to locate in Mashpee. Given that Mashpee lacks public sewage and water, it is doubtful that there will be any immediate demand for "industrial" sites within the Town. In addition, large-scale efforts to attract these land uses have been organized in neighborhing communities (Barnstable's 700-acre "Independence Park" is an example). As a result, the Town is not presently in a competitive position to attract industrial or large-scale businesses.

3. FISCAL CONSIDERATIONS

From 1932 to 1969, the Town's financial affairs were under the control of the Mashpee Advisory Commission, whose members were state officials appointed by the Governor. Because of this past status and the Town's low level of capital improvements, Mashpee at present has almost no debt. As of June 30, 1975, the Town had a fixed debt of only $52,000, resulting from borrowing for the Town's library and school. As a result, the Town has no bond rating.

Communities may find it necessary to assume a debt in order to pay for any of a number of major capital improvements. Bonding allows the burden of a capital outlay to be spread over a number of years, thereby reducing the immediate impact on a community's tax rate.

In many growing communities, it is the need for new and/or expanded schools which may necessitate such borrowing. At present, the state has a program to assist communities which are constructing educational facilities; however, there are strong indications within state government that the state aid program for school construction may in some way(s) be changed. This could mean a reduction in the scope of costs covered by such aid and/or a reduction in the level of state aid. In the future, costs approved for state aid may or may not include architects' fees, engineering fees, actual construction expenses, and financing (interest on bonds). Further, the level of state aid may be reduced in terms of total state-wide allocation, total allocation per project or per community, or percentage aid per project.

Not only must communities realize that the state aid program may in some way(s) be changed, but also they must be aware that the state's total school construction fund is limited. Thus, communities may have to stand in line for funds which may then be given to higher priority school programs elsewhere (priorities may be based on such factors as the health and safety of students, projected enrollments, racial desegregation, special and bilingual education requirements, and school building obsolescence). In other words, funding may <u>not</u> be available to a community when it needs the money.

Given such uncertainty, it seems useful to examine the fiscal impact of "best" and "worst" cases in order to obtain an idea of the range of possible impacts that a specific municipal expenditure might produce.

The actual municipal bond rating and, therefore, the actual interest rate applied to loans taken by a specific community is based upon lending institution assessment of the community's financial standing and upon assessment of the national bond market. Informal discussions with two Boston lending institutions suggest that, if Mashpee were to apply for a municipal bond rating at this

time, it would most likely be given an A-1 (third best) or A (fourth best) rating. Such a rating would mean that Mashpee would have to pay an interest rate in the vicinity of 7 percent (the exact interest rate would vary with the bond market as a whole and with the municipal bond rating given to Mashpee).

Mashpee is presently considering the construction of a $4 million middle school. If Mashpee were to receive a municipal bond rating such that the interest to be paid on its bonds would be 7 percent, the payment schedule on 20-year term loans would be as follows (using sample years):

	Payment on Principal	Interest Payment	Total Payment
First Year	$ 200,000	$ 280,000	$ 480,000
Second Year	200,000	266,000	466,000
Fifth Year	200,000	224,000	424,000
Tenth Year	200,000	154,000	354,000
Twentieth Year	200,000	14,000	214,000
Twenty-Year Total	$4,000,000	$2,940,000	$6,940,000

Assuming that state aid would cover 65 percent of the total payment (approved costs being $6,940,000), Mashpee's total share of construction costs would be:

$$\$6,940,000 \times .35 = \$2,429,000$$

It is possible to determine the effect that an expenditure will have upon a community tax rate in the following manner: the total community assessment divided by 1,000 equals the expenditure necessary to raise the present tax rate by $1,00 (assuming no change in the total community assessment). In the case of Mashpee, this would be the following:

$$\$179,318,155 \div 1,000 = \$179,318.15$$

Thus, any additional expenditure of $179,318.15 by the Town would cause a tax rate increase of $1.00. Given that Mashpee's tax rate is presently $10.00, such an increase would also mean a 10 percent increase in the tax rate, and on tax bills. If the proposed school were to be constructed with 65 percent state aid, there would be a first-year local tax rate increase of:

a) $480,000.00 x .35 = $168,000.00

b) $\frac{\$168,000.00}{\$179,318.15} = \$.94$

from $10.00 to $10.94, an increase of 9.4 percent. As a result, the tax bill on a home assessed at $50,000 would rise from $500.00 to $547.00. Of course, the impact on the tax rate becomes smaller as the interest payment becomes smaller over the twenty-year term of the bond.

Assuming no state aid, Mashpee would be responsible for all construction costs ($6,940,000). If the proposed school were to be constructed under these circumstances this year, such a project would cause a first-year local tax rate increase of:

$$\frac{\$480,000.00}{\$179,318.15} = \$2.68$$

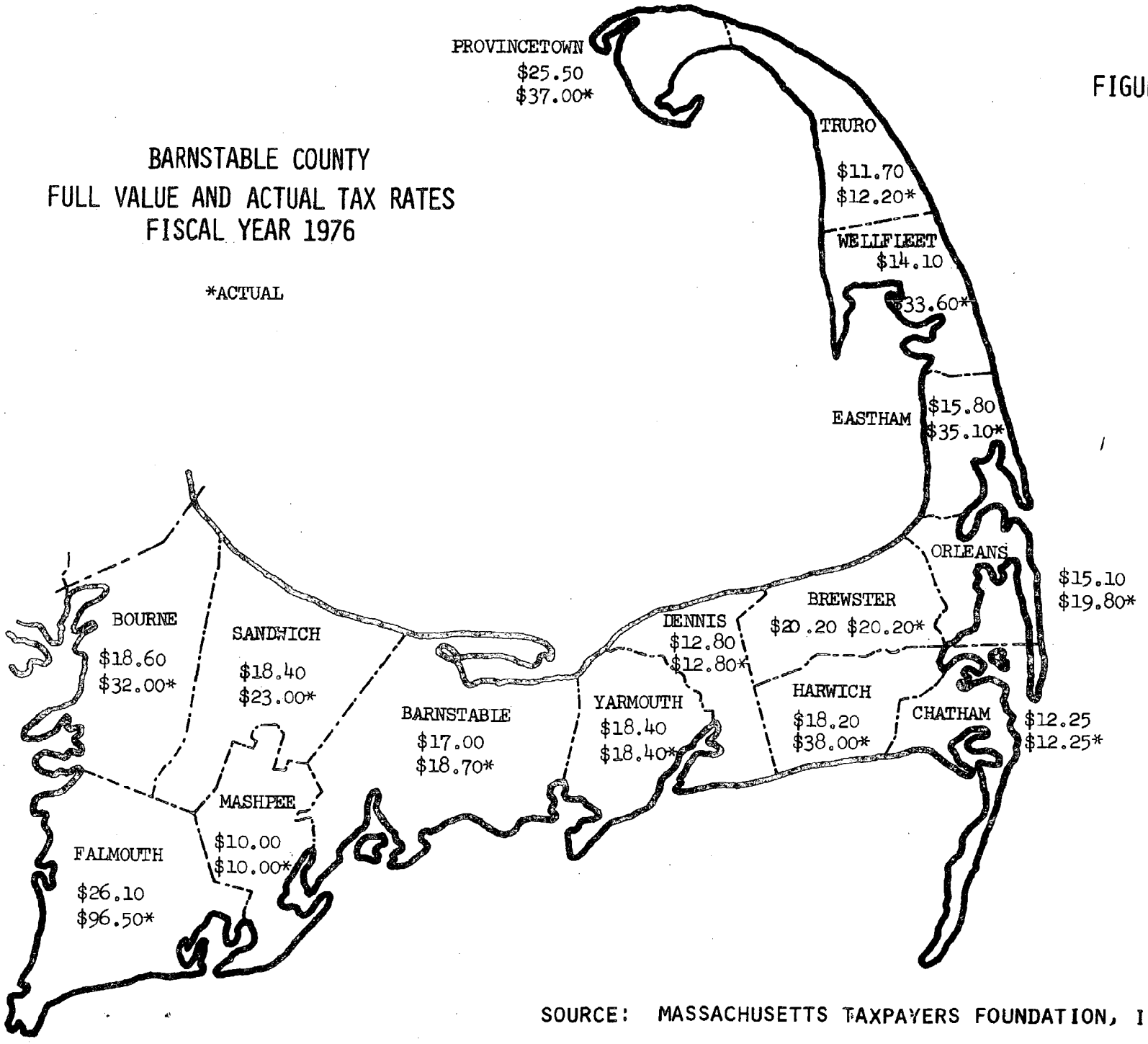
from $10.00 to $12.68, an increase of 26.8 percent. As a result, the tax bill on a home assessed at $50,000 would rise from $500.00 to $634.00. Again, the impact on the tax rate will become smaller as the yearly interest payments on the bond became smaller.

Mashpee's tax rate (both real and full value) is the lowest on Cape Cod (see Figure 2). In fact, its full value tax rate is the fourth lowest in Massachusetts. The Town's tax rate, however, is reflected in a concommitant

FIGURE 2

BARNSTABLE COUNTY
FULL VALUE AND ACTUAL TAX RATES
FISCAL YEAR 1976

*ACTUAL



SOURCE: MASSACHUSETTS TAXPAYERS FOUNDATION, INC.

level of capital expenditures and services. Because of its rudimentary level of facilities and services and its recent growth spurt, Mashpee now has a long list of needed capital improvements. The $4,000,000 for construction of only the proposed middle school could cause a first-year tax rate increase of 10 to 27 percent as noted previously.

Because Mashpee lacks a diversified property tax base, this tax burden falls on undeveloped land and residential properties. As discussed above, it is doubtful that industrial and/or large-scale commercial development will occur in Mashpee; therefore, it is essential that incentives be maintained for fiscally beneficial residential development. In order to do so, Mashpee's environment must remain attractive and the Town's rate of growth must be controlled. If the rate of growth is not controlled, residential construction will escalate service and capital improvement needs, causing the tax rate to sky-rocket. Further, it is likely that such construction will cause Mashpee's environment to deteriorate. As a result, Mashpee would lose what advantages it now has in competing for fiscally lucrative development.

4. ENVIRONMENTAL CONCERNS

Development has affected what many consider to be Mashpee's greatest assets -- its water bodies. Mashpee Town Meeting has expressed concern over deterioration of the Town's ponds by appropriating funds for their study and for their treatment by chemicals.

Mashpee has approximately 2,116 acres of fresh water, comprised primarily of four large ponds which range in area from approximately 730 acres to 170 acres and collectively have about 15 miles of shoreline. In addition, the ponds' tributaries and associated wetlands feed into coastal ponds and bays on Nantucket Sound, which touches Mashpee for about six miles.

The Town's sole water supply source is groundwater and, except for the New Seabury area, Mashpee is dependent upon private on-site wells. As is typical of Cape Cod, most of Mashpee's fresh water bodies are surface expressions of the groundwater table. Pollutants and nutrients which enter fresh water ponds may not only affect the ponds' quality but may also affect the quality of the groundwater. Similarly, pollutants and nutrients which enter the groundwater through the soil may not only affect its water quality but may also affect the quality of nearby ponds.

Recently, accelerated, premature eutrophication has been observed in some of the Town's ponds. This process, if left unabated, leads to excessive vegetation, less water, and an inability of aquatic life to survive. A principal (but not the only) contributor to both accelerated eutrophication and pollution is the effluent from on-site sanitary disposal systems (other contributors include beach useage, erosion from construction sites, etc.). Septic system effluent may contain high concentrations of phosphorus and nitrates which can travel through the soil with groundwater. Phosphorus concentrations greater than .01 milligrams per liter and nitrate concentrations greater than 0.3 milligrams per liter can encourage accelerated eutrophication in water bodies;[1] such high concentrations have been observed in Mashpee's largest ponds.[2] In addition, elevated levels of nitrate have been observed in groundwater samples taken from wells in areas of small house lot size (10,000 square feet or less).[3] Also, in 1975 elevated coliform counts (indicative of fecal pollution) were observed in one Mashpee pond, necessitating that it be closed to bathers.

Density of housing and associated septic system setback from water bodies and wells may influence the quality of surrounding surface and groundwater. Setback and density regulations should be based on an analysis of the process

whereby wastes are removed from sewage effluent as it filters through the soil; however, there are many variables that effect this natural purification system (these include soil type, slope, level of usage, composition of effluent, etc.). Often, general regulations regarding density and setback may be too strict or too lenient for a specific location, depending on the extent and success of this natural filtering process in a given area. Because liquid is able to filter through Mashpee's soil quite rapidly (perhaps too rapidly for sewage effluent removal) and because elevated nitrate and phosphorus levels associated with waste material have been observed in Mashpee's ponds, there is reason to believe that the Town's permitted housing density and required leaching field setback from water bodies may be inadequate, thereby adding to the existing level of water pollution.

Often one to two acre-lots are recommended where soils are inadequate to support denser development with associated on-site sanitary disposal systems. The largest lot zone upheld by a Massachusetts court is two acres in the case of Darcy Wilson v. Town of Sherborn (326 N.E. 2d 922; Massachusetts Appeals Court, 1975). Sherborn, like Mashpee, lacks both public water supply and a municipal sewage system. Thus, the Town's households must rely on wells and on-site septic systems. Although Sherborn did not specifically document a relationship between a minimum two-acre lot size and on-site wells and sewage systems, the court found sufficient implied correlation to sustain the requirement.

It should be noted that once a pond shows evidence of accelerated eutrophication, the corrective action taken often consists of chemical treatment to reduce accumulated nutrients. This reduction of nutrients is necessary; but, chemical treatment treats only the visible symptoms of the eutrophication problem and may have to be repeated periodically. Permanent reduction or prevention of excessive pond fertilization (the cause of the eutrophication problem) is the measure that should be taken in order to maintain high-quality ponds.

III. COMMUNITY CONTROL OVER GROWTH

A. COMMUNITY AGENCIES

Many community agencies play a role, direct or indirect, in determining the rate and location of local growth. The Town Meeting or City Council adopts zoning regulations and controls which serve to legally guide the actions of various community boards. The community's chief executive (Mayor, Selectmen, or their Executive Secretary, etc.) coordinates the actions of these boards, in some cases establishes the goals which define their policies, and in some cases appoints their members. These boards (appointed or elected) which may directly or indirectly affect local growth include, but are not limited to, the Board of Public Works (and/or Water Department, Sewer Department, Highway Department, etc.), Housing Authority, Redevelopment Authority, Recreation Commission, Historical Commission, and Board of Assessors.

More directly involved with the regulatory aspects of community development are the Conservation Commission, Board of Health, Board of Appeals, Planning Board, and Building Inspector.

1. CONSERVATION COMMISSION

The Conservation Commission is charged with the promotion and development of the community's natural resources and the protection of its watershed resources. The Commission is required to conduct research into local land areas and to keep an index of all open areas, marsh lands, swamps, and all other wetlands within the community (Chapter 40, Section 8C, Massachusetts General Laws, i.e., C 40, S 8C, MGL).

If the Commission determines that an area on which proposed work is to be done is significant to public or private water supply, to the ground water supply,

to flood control, to storm drainage prevention, to prevention of pollution, to protection of land containing shellfish, or to protection of fisheries, it may impose conditions on such development (C 131, S 40, MGL).

2. BOARD OF HEALTH

The Board of Health has the power to make reasonable health regulations (C 111, S 31, MGL). Consequently, the Board is responsible for making all such regulations as it judges necessary for the protection of public health and safety with respect to nuisances, sources of filth, and causes of sickness within the community. The Board administers and enforces the state sanitary code (C 111, S 127A, MGL) in addition to enforcing its own local regulations (which may be more stringent than state regulations).

It is the duty of the Board of Health to report to the Planning Board its approval or disapproval of all definitive subdivision plans. In the event that it disapproves of a plan, the Board must cite the reasons for the disapproval and make recommendations for adjustments thereof (C 41, S 81U, MGL). Reasons for disapproval often involve the buildability of lots and the suitability of lots for septic systems.

3. BOARD OF APPEALS

The Board of Appeals has the power to hold hearings and decide appeals by any person aggrieved by reason of his inability to obtain a permit or enforcement action from any administrative officer in violation of any provision of the zoning by-law (C 40A, S 8, MGL). It may also be charged with the responsibility of deciding applications for special permits where provision is made in the zoning by-law for the granting of such permits (C 40A, S 1, MGL).

4. PLANNING BOARD

The Planning Board is mandated to make studies and prepare plans of the resources, possibilities, and needs of the community and may submit its findings and recommendations to the City Council or Selectmen (C 41, S 81C, MGL).

Under the subdivision control law, enacted for the purpose of protecting the public safety, convenience, and welfare by regulating the laying out and construction of ways in subdivisions and ensuring sanitary conditions therein, the Planning Board exercises its power with regard

> for the provision of adequate access to all of the lots in a subdivision by ways that will be safe and convenient for travel: for lessening congestion in such ways and in the adjacent public ways; for reducing danger to life and limb in the operation of motor vehicles; for securing safety in the case of fire, flood, panic and other emergencies; for insuring compliance with the applicable zoning ordinances or by-laws; for securing adequate provision for water, sewerage, drainage, underground utility services, fire, police, and other similar municipal equipment, and street lighting and other requirements where necessary in a subdivision; and for coordinating the ways in a subdivision with each other and with the public ways in the city or town in which it is located and with the ways in neighboring subdivisions. (C 41, S 81M, MGL.)

Further, no zoning ordinance or by-law or amendment can be adopted until after the Planning Board has held a hearing and had an opportunity to make a report of its recommendations to the Town Meeting or City Council (C 40A, S 5, MGL). In addition, the Planning Board may act as the Special Permit Granting Authority in a community (C 40A, S 1, MGL).

5. BUILDING INSPECTOR

The Building Inspector, among other duties, is charged with the enforcement of the zoning by-law and may withhold a permit for the construction, alteration, or moving of any building if the building as constructed, altered,

or moved would be in violation of any zoning ordinance (C 40A, S 7, MGL).

B. NEED FOR ADMINISTRATIVE COORDINATION

In our survey of townspeople's perspectives on land use-related problems, a chief concern cited was lack of administrative coordination among town boards. A recent report on land use management issues noted that "no single deficiency has accounted for more environmental degradation and costly consequences to a community than improper enforcement procedures."[4] The report listed several reasons for enforcement abuses and maladministration, reasons similar to those citied by Mashpee residents: (a) improper personnel deployment (not being at the "right" place at the "right" time); (b) enforcement personnel lack knowledge as to rules, regulations, by-laws, ordinances, enforcement procedures, etc.; (c) Board or Commission with responsibility for enforcement lacks sufficient time for regular vigilance; (d) lack of understanding (of rules, etc.) and available legal assistance once violations and violators are found; (e) lack of understanding (of rules, etc.) and available police and court assistance once violators are found.[5] Clearly, land use regulations are worthless if improperly enforced, or not enforced at all.

It is essential that land use regulations exist, but they should not exist for their own sake; "another regulation on top of several others, all designed to do essentially the same thing, will only frustrate developers and eventually the public itself."[6] Regulations must make sense, they must be properly enforced, and their enforcement must be consistent. The procedures that a developer must follow in submitting proposals should be clearly set out, for the developer's sake and for the community's sake.

For instance, it is important to have one town board charged with the responsibility of coordinating the reviews of special permit applications. Since the Planning Board has been charged by the legislature to plan and

provide for the orderly growth of the community, it is logical to have the Planning Board coordinate the process for reviews and insure that all relevant town boards participate in an orderly manner.

The purpose of the review process is to surface the concerns of the various boards relative to a development proposal before the proposal reaches final design (or definitive subdivision approval) stage. For example, if the Conservation Commission or the Board of Health, after on-site inspection, were to identify problems with the proposal, an applicant would have the opportunity to make revisions in accord with these boards' recommendations. In the case of a subdivision, such revisions could be incorporated into the plan for definitive approval.

It is important to note that if the criteria by which boards review special permit applications are known in advance, developers will be more likely to submit acceptable plans initially. Doing so would save time and energy for the town boards which would not have to review the same proposal in a number of forms, and it would save time, energy, and money for the developers who would not have to redraft their proposals and resubmit them a number of times. Excessive and unnecessary delays in approving developments have contributed to the skyrocketing cost of housing construction without protecting the environment or providing a reasonable land use management process in a community.

IV. LAND USE MANAGEMENT TECHNIQUES

If a community were to adopt a land use management strategy which is responsive to the needs of environmentally-sensitive areas within that city or town, the community's various boards might consider employing any of a number of legal mechanisms available for managing growth in such areas. Applied individually or in concert, these mechanisms can provide a community with legal authority over many aspects of local development.

It is important to note that mechanisms such as those discussed in this report should be employed only to protect areas especially vulnerable to the environmental degradation which may result from development. It would be irresponsible and illegal for communities to employ such techniques in the name of environmental protection when the community's true aim is to prevent development of any sort from occurring. The techniques discussed in the following pages should be employed only after a comprehensive assessment of the community and the formulation of a plan for community development. In this way the community's development goals and objectives can be determined and a balance established between the issues of growth and non-growth. The interests of developers, conservationists, low and moderate-income groups, among others, must be taken into account in formulating a community development plan. It cannot be emphasized enough that land use management controls must be applied in a rational and consistent manner in order to guide community development and accommodate growth. Such an approach would meet local as well as regional housing and economic development needs while respecting the natural environment.

A. ZONING

The basic technique available to communities for control over local development is the enactment of a set of zoning regulations, the purpose of

which is to promote the public health, safety, and welfare. Under such regulations, the municipality may be divided into a number of districts within which the size and use of buildings and lots may be controlled (C 40A, S 2, MGL).

1. LARGE-LOT ZONING

As indicated in the discussion of Mashpee's environmental problems, the validity of two-acre zoning has been upheld by the Massachusetts Appeals Court in the interest of insuring public health. Clearly, large-lot zoning provides a mechanism whereby development can be limited in unsewered areas with soils not conducive to septic systems; however, communities must not employ such by-laws as a means to covertly foster exclusionary zoning. An undesirable aspect of large-lot zoning is that such zoning causes an increase in the cost of housing, thereby pricing the average family out of the single-family housing market and forcing developers to construct large multi-bedroom housing units which impact school systems more severely than the moderately-sized units that otherwise could have been constructed.

2. OPEN SPACE AND SPECIAL WATER-RELATED DISTRICTS

Although such large-lot zoning might limit development and prevent non-affluent individuals from acquiring house lots, one cannot ignore the fact that the rate, density levels, and placement of residential development and associated septic systems have contributed to the degeneration of many of the state's ponds and that these causative factors, if allowed to continue over time, will not only exacerbate existing problems, but may also have an effect upon both the quality and quantity of the state's groundwater. About one-fourth of the communities in Massachusetts have enacted a cluster by-law,

the intention of which is to give developers an incentive to create open space. The by-law has been effective in achieving this in many cases; however, the open spaces so created do not always relate to the communities' natural resources. In addition, despite cluster development and the ongoing efforts of many communities to reclaim tax-title land or foreclosed properties, the resulting creation of open space is, for the most part, random and not geographically linked.

In the future, communities may want to create open space in a somewhat different manner. By-laws may provide for special permits authorizing increases in the permissible density of population or intensity of a particular use in a proposed development provided that the petitioner or applicant, as a condition for the granting of said permit, provide improvements or amenities (as specified in the by-law) such as open space, housing for persons of low or moderate income, or traffic and pedestrian improvements. The by-law must state the maximum increases in density of population or intensity of use allowed under the special permit (C 40A, S 9, MGL).

In order to lower the density level at which areas around ponds may be developed, to increase the distance between ponds and future construction, and (by doing so) to create linked open space around ponds, a bonus system may be made available.in the form of a special permit, for those wishing to build in zones around ponds. Under such a system, all land within a certain distance of the extreme high-water mark of ponds would become part of a distinct zoning district.

Several bases for the refinement of the delineation of these districts are possible including the use of lot lines, roads, existing settlement patterns, and drainage patterns. For example, the distance might be increased to include all land between adjacent ponds or might be reduced to exclude areas where surface and groundwater flow is away from the pond. The Special

Permit Granting Authority's intimate knowledge of the areas in question, combined with data from such sources as the "Section 208" water quality planning program, the recent SENE water and related lands study, and (in the case of Mashpee) the U.S. Geological Survey's comprehensive study of groundwater resources on Cape Cod will aid in refining and adopting such a program and translating it into zoning by-laws.

As an example, within a pond district, the minimum lot size allowed by right for a single-family dwelling might be 60,000 square feet. However, an applicant for a proposed residential development would be eligible by special permit for a density bonus if the applicant provided a setback of 200 feet or more from the extreme high-water mark of the abutting water body and put that area under a permanent conservation restriction.

> A conservation restriction means a right (either in perpetuity or for a specified number of years) . . . appropriate to retaining land or water areas predominantly in their natural, scenic or open condition or in agricultural, farming or forest use, to forbid or limit any or all (a) construction . . . on or above the ground, (b) dumping . . ., (c) removal or destruction of trees, shrubs or other vegetation, (d) excavation, dredging or removal of loam . . ., (e) surface use except for agricultural, farming, forest or outdoor recreational purposes or purposes permitting the land or water area to remain predominantly in its natural condition, (f) activities detrimental to drainage, . . . erosion control . . . (g) other acts or uses detrimental to such retention of land or water areas. (Emphasis supplied.) (C 184, S 31, as amended, MGL.)

The density bonus would then be applied to the non-restricted land within the proposed development.

The density bonus might work as described in the following paragraph. The calculations are based on the number of lots possible within the given

800 feet by 200 feet tract (160,000 square feet, exclusive of subdivision and zoning regulations such as roadways, road frontage, and depth of lot requirements). The lot has a 200 foot pond frontage.

If the minimum lot size allowed by right on this tract were 60,000 square feet, it would be possible to build 160,000 ÷ 60,000 = 2.67 or, in fact, two dwelling units on the entire tract. Creation of a 200 foot conservation setback would restrict construction to the 600 feet away from the pond, leaving 600' x 200' = 120,000 square feet of nonrestricted land in the tract. The restricted 40,000 square feet represent 40,000 ÷ 160,000 = .25 or 25 percent of the total tract. If the landowner were allowed to apply the 25 percent loss (with a bonus multiplier) to the remaining, nonrestricted land in his tract, he could construct additional dwelling units as follows:

DWELLING UNITS ALLOWED BY RIGHT	POSSIBLE BONUS MULTIPLIERS	BONUS APPLIED	DWELLING UNITS ALLOWED UNDER BONUS
	None	None	2.67 or <u>two</u>
	.25 x 1 = .25	2.67 x .25 = .67	2.67 + .67 = 3.34 or <u>three</u>
2.67 or, in	.25 x 2 = .50	2.67 x .50 = 1.34	2.67 + 1.34 = 4.01 or <u>four</u>
fact, <u>two</u>	.25 x 3 = .75	2.67 x .75 = 2.00	2.67 + 2.00 = 4.67 or <u>four</u>
	.25 x 4 = 1.00	2.67 x 1.00 = 2.67	2.67 + 2.67 = 5.34 or <u>five</u>
	.25 x 5 = 1.25	2.67 x 1.25 = 3.34	2.67 + 3.34 = 6.01 or <u>six</u>

Housing density on the nonrestricted portion of the tract (120,000 square feet), exclusive of subdivision and zoning requirements, would be such that two houses on the tract would each have 60,000 square feet; three houses would each have 40,000 square feet; four houses would each have 30,000 square feet; five houses would each have 24,000 square feet; and six houses would each have 20,000 square feet. Thus, the use of a bonus multiplier of five would allow an applicant to build six houses on the nonrestricted portion of the land, triple

the number of houses allowed by right. In this case, there would be one house per 20,000 square feet on the developed portion of the tract. That density level would be lower than that now possible in Mashpee, for under the Town's existing cluster by-law it is possible to build on 12,500 square foot water frontage lots in residential zones. Pond district special permit lots would not markedly differ in size (a minimum should be specified) from minimum lot sizes allowed by right (22,500 square feet) in most of the zoning districts abutting the proposed pond districts. However, under the bonus system, future development would be away from the ponds, creating a linked open space buffer zone between ponds and all new construction.

The creation of linked open space around ponds raises the issue of public access to those ponds. By statute, great ponds exceeding 20 acres "shall be public for the purpose of hunting and boating thereon and shall . . . be open to all inhabitants of the Commonwealth for fishing purposes . . ." (C 131, S 45, MGL). Although all persons are to be allowed reasonable means of access to such ponds in order to hunt and boat, for practical purposes effective access exists only where publicly-owned lands abut a pond. Further, in many communities residents are unaware of the location of access points and/or landings which may exist.

These access rights pose a dilemma for communities. Certainly, residents ought to know the locations of and have access to these ponds. The creation of open space around the ponds may well call attention to them as recreational resources and create a demand for access to them. However, some of the ponds are deteriorating, partly because of intensive and unregulated beach usage. As a result, a community may wish to discourage or to prohibit non-residents from using any community-created access to the ponds; but discrimination

against non-residents raises serious constitutional and statutory questions. Exclusion of non-residents is not permissible, for the ponds are to be "open to all inhabitants of the Commonwealth . ..." However, this does not mean that a city or town is without power to protect natural resources. The power to regulate and limit public activities which adversely affect beaches, great ponds, or other natural resources has been delegated to communities under the state's police power.

Within the limitations described above, a community could post access points; regulate their use by imposing parking, beach, and boat regulations; or adopt stringent land development controls. In these ways, access could be limited to specific access points and pond useage could be limited.[7]

As with the ponds, a community may wish to protect its rivers and streams from development encroachment. Their protection naturally serves as an example of what options exist for the geographical linking of open space.

Under one option, a community might allow, by right, single-family dwellings on lots of 22,500 square feet or more on each bank of a river or stream. By special permit, a density bonus similar to that described for the pond districts could be allowed in return for a restricted setback area (for example, 100 feet). As with the pond districts, a minimum lot size, under the bonus system, should be specified in the by-law.

3. FLOOD PLAIN ZONING

A community may also control development along rivers and streams by adopting a zoning by-law which provides that "lands deemed subject to seasonal or periodic flooding shall not be used for residence or other purposes in such a manner as to endanger the health or safety of the occupants thereof" (C 40A, S 2, MGL). In Mashpee, such flood plain zoning could be applicable to the banks of the Mashpee and Santuit Rivers south of Route 28.

4. SCENIC RIVERS ACT

Another option involves the state's use of the Scenic Rivers Act (C 21, S 17B, MGL) under which any river or stream in the state may qualify as a scenic river. The statute defines "scenic rivers" as:

> Rivers and streams of the Commonwealth, or portions thereof, and such contiguous land not to exceed 100 yards on either side of the natural bank of such rivers as the Commissioner (of Environmental Management) reasonably deems it necessary to protect by any order. This allows the Commissioner of Environmental Management to: adopt, amend, modify, or repeal orders regulating, restricting, or prohibiting dredging, filling, removing, or otherwise altering, or polluting the scenic and recreational rivers and streams of the Commonwealth.

The purpose of these orders is to promote public safety, health, and welfare, to protect public and private property, wildlife, fresh water fisheries, and irreplaceable wild, scenic, and recreational river resources. Thus, the power exists to deny various land uses along the river banks.

To date, no orders have actually been placed upon any river. In the case of Mashpee, the Mashpee River would provide well substantiated grounds for an order. The River has not been despoiled and qualifies (under the intent of the statute) as an irreplaceable wild, scenic and recreational river with associated wildlife and fresh water fisheries. The Scenic Rivers mechanism, particularly if implemented on a broad and coordinated basis, could create a means to guide growth away from rivers and by so doing create large-scale linkages of recreationally-oriented open space.

In addition, Mashpee is subject to the Coastal Zone Management planning program. One of that program's goals is to encourage land uses which are appropriate to coastal zones. A particular concern is the protection of coastal estuaries, of which the Mashpee River is one. Similarly, the "Section 208"

program is examining potential methods for guiding growth and development so as to minimize water pollution. The program is statutorily mandated to consider locational controls over sources of water pollution (for example, on-site sanitary sewage disposal systems).

B. GROWTH CONTROL MECHANISMS

1. LIMIT BUILDING PERMITS

The U.S. Supreme Court has decided not to review an appeals court decision which upheld the constitutionality of a growth control system established in Petaluma, California. That system limited the granting of building permits to 500 units per year. Rapid growth in Petaluma had overloaded sewer and water lines and has necessitated double sessions in the community's schools.

A Massachusetts municipality may adopt a zoning by-law, the purpose of which is to regulate the rate of growth within the community; however, there must be a reasonable relationship between the growth rate by-law and an attempt to insure the public health, safety, and welfare. For example, the Massachusetts Attorney General's office has approved the Town of Tisbury's zoning by-law which includes an annual limit on dwelling unit construction.

In order to establish the validity of such a by-law, a community must show that it has problems related to public health, safety, or welfare which bear a relationship to an excessive growth rate. For instance, a community would be ill-advised to establish a growth rate on the basis that excessive growth will raise the tax rate. However, contamination of or a projected excessive demand for a community's water supply due to rapid growth could constitute a legitimate basis for establishing an annual rate for new construction.

A zoning by-law incorporating such a growth rate should reference its authority to the Zoning Act (C 40A, MGL), rather than to the enabling legislation for planning boards and control over subdivisions (C 41, MGL). Because the Zoning Act affords certain protections to subdivision plans from increased zoning requirements, any growth rate applicable to residential construction involving the division of land cannot impose a development rate which allows less than one-fifth of a subdivision to be constructed each year if the subdivision plan has a five-year protection period in accordance with the provisions of the Zoning Act. Alternatively, a community could establish a one-tenth growth rate applicable to subdivisions if by local zoning by-law such subdivisions had a ten-year protection period relative to zoning by-law amendments adopted after the submission of the subdivision plan.

If a community can establish that single-family residential construction bears a relationship to public health, safety, or welfare problems, it could adopt a rate control zoning by-law expressing the following suggested rule: "Proposed residential developments containing sufficient area to provide more than twenty-five building lots permitted under the zoning by-law for the district shall not be developed by the construction of dwelling units at a greater rate than one-fifth each year of the total lots shown on an approved plan." This by-law is proposed for subdivisions of twenty-five building lots or larger as it is the larger subdivisions which have most adversely impacted community facilities and natural resources. To apply such a by-law to smaller subdivisions would place an excessive burden on the small developer without producing a significant positive effect on the community.

2. PHASED GROWTH

Phased growth is a community development management concept first

introduced in Ramapo, New York in an attempt to discourage scattered, haphazard growth patterns. This concept is based on a community's ability to adequately service development as it occurs. The key element in the program is a point system under which points are awarded for availability of and proximity to schools, water and sewer services, etc. A minimum number of development points is required prior to the issuance of a permit to build.

The system is generally administered concurrently with a capital improvement program that is designed to place point-scoring infrastructure in those areas most capable of sustaining growth, thereby encouraging growth in areas capable of supporting new development and discouraging growth in areas incapable of supporting new development.

The major benefits of this concept are that it affords the means to service both new and existing development at a pace acceptable to the community; it creates the basis for greater coordination in the construction of schools, parks, water, sewer and road service; it provides for a higher degree of management for implementing a land use plan; and it offers a high degree of predictability over community development.

3. TRANSFER DEVELOPMENT RIGHTS

Transfer Development Rights (TDR) is a relatively new technique of free market development controls. The concept evolves around the fact that the right to develop land can be separated from the land itself and that development rights or land can be sold separately by the landowner. Once development rights are sold, however, the land can no longer be developed according to its zoned potential, and must thereafter remain in its present use. The concept is similar to conservation easements and requires a permanent deed restriction on the land.

Briefly, the concept would work as follows: a landowner, perhaps a farmer or an individual who owns a unique parcel of land in the town, can sell or transfer his right to develop the land to a developer. The purpose, area, and eligibility for such transfers would have been predetermined, such as preservation of agricultural lands or the preservation of an historic area. The developer could buy the density development right and transfer it to land that he wishes to develop at a higher density. In this manner, areas that the town wishes to conserve will be protected and areas where development is desired will grow. The landowner receives a fair market price for selling his development rights but retains ownership of his land. There are many unresolved questions both legal and political that must be addressed if this concept is to be effective. (Public purchase of agricultural land development rights is discussed in Preserving Agricultural Land, Publication Number 2 in the Local Assistance Series.)

4. CONSERVATION RESTRICTIONS AND REDUCED ASSESSMENTS

Conservation restrictions may be combined with reduced assessments on restricted parcels in order to encourage a landowner not to transfer or develop that property. Assessors have the discretion to assess parcels under conservation restrictions at a rate below the fair and full market value (C 59, S 11, MGL). In such cases, assessments should be granted according to an advertised schedule that guarantees landowners specific percentages off assessed valuation based upon the period of the restriction (i.e., permanent, twenty years, ten years, etc.). Individual communities may modify their schedules according to present land value (a reduction on assessment may be greater for prime development land than for land in a floodplain zoning district).

Programs also exist under which reduced assessments can be placed on managed

forest lands (C 61, S 1-6, MGL) and farmland (C 61A, S 1-24, MGL), thereby lowering property tax bills on such land.

C. LAND ACQUISITION

A community may acquire land in order to keep development from encroaching on environmentally-sensitive areas and/or to safeguard open space. Acquisition affords a city or town the greatest control over land, but a land acquisition program can place a fiscal burden on a community for the acquisition and management of the land needs.

Financial assistance is available to Massachusetts communities from the Federal Land and Water Conservation Fund which is administered nationally by the U.S. Department of the Interior's Bureau of Outdoor Recreation and locally by the Executive Office of Environmental Affairs' Division of Construction Services. This program provides funds to reimburse communities up to 50 percent of the local costs for the acquisition and development of public outdoor recreation areas. Funds are also available from the state-funded Massachusetts Self-Help Program which is administered by the Division of Conservation Services. This program, designed for communities with Conservation Commissions, provides funds to reimburse communities up to 50 percent of the local costs for the acquisition of conservation lands (C 132A, S 11, MGL). The Land and Water Conservation Fund and the Massachusetts Self-Help Program may be applied together, in which case a community may receive a total of up to 75 percent reimbursement for the cost of purchasing land.

In addition, assistance may be available from the National Park Service which can provide funds for the acquisition and development of significant historical, archeological, architectural, and cultural sites through the

National Historic Preservation Act. If a community so desires, revenue sharing funds can be applied to the purchase of open space lands.

Of course a community may also acquire land through private donation or as a charitable gift in trust.

V. ASSESSING LOCAL OPINION ON LAND USE MANAGEMENT

On December 22, 1975, Governor Dukakis signed the Massachusetts Growth Policy and Development Act (Chapter 807 of the Acts of 1975) into law. The Act is designed to initiate a locally-oriented planning process which would evaluate the effects of past growth and development and establish future growth and development goals tailored to the needs of each municipality in Massachusetts. The legislation calls for the involvement of citizens and local officials, regional planning agencies, the Office of State Planning and other state agencies, and members of the General Court in the development of recommendations, policies and objectives, which would provide a balance between economic development and environmental preservation. The effort will also lead to the identification of appropriate methods of implementation. Ultimately, it is hoped that this process will provide a truly comprehensive strategy for guiding growth and development in Massachusetts.

A community's growth and development objectives as described in its "Statement of Local Growth Management Problems and Priorities" may not address the specific concerns of a local land use management study. Therefore, it may be necessary to prepare a community-specific questionnaire to supplement that employed in this process.

Prior to the enactment of the Growth Policy and Development Act, the Department of Community Affairs distributed a questionnaire to Mashpee town officials and others who make land use decisions in the community. Participants in this process (as well as in interviews and group discussions) included: Board of Selectmen; Secretary, Clerk to Board of Selectmen; Planning Board; Planning Board Engineer; Board of Assessors; Board of Health; Health Agent; Conservation Commission; Waterways Committee; Shellfish Warden; Police Chief; Town Accountant; Personnel Board; Park and Recreation Commission; Wampanoag Tribal Council; local media representatives; and local developers. The

questions, designed to elicit local opinions on community growth, were open-ended and a pledge was made to insure the confidentiality of all responses. The results of this process (see Chapter II., Part A. THE COMMUNITY's PERSPECTIVE, pages 2-5) were quite helpful to DCA in determining community attitudes on growth.

The questionnaire itself took the following form:

Please respond to the following questions in as much detail as you feel necessary, giving, where appropriate, specific examples which relate to the concerns of your board or office. Please give brief answers, but feel free to use additional pages if you think further explanation is warranted.

1. Describe expected growth in your community.

_____

_____

_____

_____

2. Where is growth expected to occur?

_____

_____

_____

_____

3. What problems (for instance, administrative, fiscal, environmental, social) are expected from this growth? Problems for whom?

_____

_____

_____

_____

4. What benefits (for instance, administrative, fiscal, environmental, social) are expected from this growth? Benefits for whom?

5. What can your community do to insure that future development will produce benefits?

6. What can your community do to prevent future development from causing problems?

7. What difficulties would there be in your community's taking such actions (as outlined in your response to questions 5 and 6)?

8. What land use controls (permits, etc.) which might impede undesirable growth are lacking?

9. What land use controls (permits, etc.) are there which have impeded desirable growth?

10. In general, what kind of development ought to be encouraged in your community?

10a. Where?

10b. Why there?

11. What attempts should be made to encourage such development?

12. What aspects/features/assets of your community are most vulnerable to development?

13. What areas (or types of areas) should not be developed or should be protected from inappropriate development?

13a. What sort of land uses would be most compatible to these areas (or types of areas)?

14. What decisions or programs have your board of office made or considered making which would affect development?

15. Describe your ideal image of your community.

FOOTNOTES

[1]Lawrence Beal, Septic Systems: Function and Regulation (unpublished paper, University of Massachusetts, 1975), pp. 9-10.

[2]Tim Hennigan Engineering Company, Inc., Environmental Chemical Quality and Criteria of the Ponds and Wetlands of Mashpee, 1975 (report to the Town of Mashpee, unpaginated).

[3]William B. Kerfoot, "Living Filters and Water Conservation on Cape Cod," Vol. IV of The Cape Naturalist (Summer, 1975), p. 8.

[4]Central Massachusetts Regional Planning Commission, Analysis of Selected Land Use Issues Within Massachusetts (report prepared for the State Land Use Project, January, 1975) p. 22.

[5]Ibid., p. 24.

[6]Ibid., p. 20.

[7]A complete discussion of this issue appears in James M. Friedman's Public Access to Great Ponds and the Seashore, a report to the Towns of Martha's Vineyard and the Martha's Vineyard Commission.